

IN THE CLAIMS:

Claims 1-10 (cancelled)

Claim 11 (withdrawn): A protein specifically expressed in differentiated chondrocytes, comprising an ezrin-like domain, a Db1 domain, and a pleckstrin domain.

Claim 12 (withdrawn): A protein having an amino acid sequence set forth in SEQ ID NO: 2 in the sequence listing.

Claim 13 (withdrawn): A protein comprising an amino acid sequence set forth in SEQ ID NO: 2 in the sequence listing in which one to several amino acids have been deleted, substituted or added, the protein being specifically expressed in differentiated chondrocytes, and the protein being such that

(1) the amino acid sequence of a portion of the protein corresponding to an amino acid sequence ranging from the 1st to 374th amino acids in SEQ ID NO: 2 in the sequence listing has homology of 85% or more to the amino acid sequence ranging from the 1st to 374th amino acids in the SEQ ID NO: 2,

(2) the amino acid sequence of a portion of the protein corresponding to an amino acid sequence ranging from the 544th to 737th amino acids in SEQ ID NO: 2 in the sequence listing has homology of 85% or more to the amino acid sequence ranging from the 544th to 737th amino acids in the SEQ ID NO: 2, and

(3) the amino acid sequence of a portion of the protein corresponding to an amino acid sequence ranging from the 764th to 854th amino acids in SEQ ID NO: 2 in the sequence listing has homology of 85% or more to the amino acid sequence ranging from the 764th to 854th amino acids in the SEQ ID NO: 2.

Claim 14 (withdrawn): DNA encoding the protein according to claim 11.

Claim 15 (previously presented): An isolated DNA encoding a protein having an amino acid sequence as set forth in SEQ ID NO: 2.

Claim 16 (currently amended): An isolated DNA encoding a protein having ~~Rho-GEF~~ activity comprising an amino acid sequence set forth in SEQ ID NO: 2 in which one to several amino acids have been deleted, substituted or added, the protein being specifically expressed in differentiated chondrocytes ~~versus dedifferentiated chondrocytes~~, and the protein being such that

——— 1) the amino acid sequence of a portion of the protein corresponding to an amino acid sequence ranging from the 1st to 374th amino acids in SEQ ID NO: 2 in the sequence listing has homology of 85% or more to the amino acid sequence ranging from the 1st to 374th amino acids in the SEQ ID NO: 2,

——— (2) the amino acid sequence of a portion of the protein corresponding to an amino acid sequence ranging from the 544th to 737th amino acids in SEQ ID NO: 2 in the sequence listing has homology of 85% or more to the amino acid sequence ranging from the 544th to 737th amino acids in the SEQ ID NO: 2, and

(3) the amino acid sequence of a portion of the protein corresponding to an amino acid sequence ranging from the 764th to 854th amino acids in SEQ ID NO: 2 in the sequence listing has homology of 85% or more to the amino acid sequence ranging from the 764th to 854th amino acids in the SEQ ID NO: 2 comprising an ezrin-like domain, a Dbl domain and a pleckstrin domain.

Claim 17 (currently amended): An isolated ~~gene encoding a protein having Rho-GEF~~ activity comprising DNA shown in the following (a) or (b):

(a)——DNA having a nucleotide sequence ranging from the 49th to 3,183rd bases in a the nucleotide sequence set forth in SEQ ID NO: 1; and

(b)——DNA which is hybridized under stringent conditions with DNA having a nucleotide sequence ranging from the 49th to 3,183rd bases in a nucleotide sequence set forth in SEQ ID NO: 1, and which encodes a protein specifically expressed in ~~differentiated chondrocytes as compared to dedifferentiated chondrocytes, wherein~~

~~stringent conditions are defined as those conditions which permit hybridization of DNA's having a homology of 80% or more to SEQ ID NO: 1, but at which nucleic acids having lower homology do not hybridize.~~

Claim 18 (cancelled)

Claim 19 (withdrawn): An antibody against the protein according to claim 11.

Claim 20 (withdrawn): An antibody against the protein according to claim 12.

Claim 21 (withdrawn): An antibody against the protein according to claim 13.

Claims 22-24 (cancelled)

Claim 25 (original) An isolated nucleic acid molecule consisting of the DNA sequence of SEQ ID NO: 1.

Claim 26 (cancelled)

Claim 27 (currently amended): An isolated nucleic acid molecule consisting of a DNA sequence fully complementary to the sequence of SEQ ID NO: 1.

Claim 28 (cancelled)

Claim 29 (withdrawn): A method of identifying an agent which modulates at least one activity of a protein comprising the sequence of SEQ ID NO: 2 comprising the steps of:

(a) exposing cells which express the protein to the agent; and

(b) determining whether the agent modulates at least one activity of said protein, thereby identifying an agent which modulates at least one activity of a protein comprising the sequence of SEQ ID NO: 2.

Claim 30 (withdrawn): The method of claim 29 wherein the activity is regulation of cell differentiation.

Claim 31 (withdrawn): The method of claim 29 wherein the cell is a human chondrocyte.

Claim 32 (currently amended): A kit for identifying a differentiated chondrocyte from a dedifferentiated chondrocyte comprising at least one of the nucleic acids of claims 15-17, ~~and 25-28~~ 25 and 27.

Claim 33 (withdrawn): An isolated nucleic acid molecule obtained by PCR amplification using primers having the sequences of SEQ ID NO: 13 and SEQ ID NO: 14.

Claim 34 (cancelled):

Claim 35 (withdrawn): An isolated nucleic acid molecule obtained by amplification using primers having the sequences of SEQ ID NO: 16 and SEQ ID NO: 18.

Claim 36 (withdrawn): An isolated nucleic acid molecule obtained by amplification using primers having the sequences of SEQ ID NO: 16 and SEQ ID NO: 19.

Claim 37 (withdrawn): An isolated nucleic acid molecule obtained by amplification using primers having the sequences of SEQ ID NO: 20 and SEQ ID NO: 18.

Claim 38 (withdrawn): An isolated nucleic acid molecule obtained by 5'-RACE amplification using primers having the sequences of SEQ ID NO: 15 and SEQ ID NO: 17.